Substitute for form 1449A/PTO			9A/PTO	Complete If Known		
	STA	TEME	TION DISCLOSURE NT BY APPLICANT Ty sheets as necessary)	Application Number	10/763,883	
			•	Filing Date	January 23, 2004	
			•	First Named Inventor	Michael Hensel	
				Group Art Unit	1645	
				Examiner Name	Khatol S. Shahnan Shah	
_	1	of	1	Attorney Docket Number	ICI 104 DIV	

		OTHER ART - NON PATENT LITERATURE DOCUMENTS	-3
xaminer's initials*	Cite No.'	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city end/or country where published	T ²
/KS/		BERGMAN et al, "The IcrB (yscN/U) gene cluster of <i>Yersinia pseudotuberculosis</i> is involved in Yop secretion and shows high homology to the spa gene clusters of <i>Shigelle flexneri</i> and Salmonella typhimurium", <i>J. Bacteriol.</i> , 176(9):2619-26 (1994).	
/KS/		BUCHMEIER et al, "Recombination-deficient mutents of <i>Selmonelle typhimurium</i> are avirulent and sensitive to the oxidative burst of macrophages", <i>Mol. Microbiol.</i> , 7(6):933-6 (1993).	
/KS/	-	GALAN and CURTISS, "Cloning and molecular characterization of genes whose products allow <i>Salmonella typhimurium</i> to penetrate tissue culture cells", <i>Proc. Natl. Acad. Sci. USA</i> , 86(16):6383-7 (1989).	
/KS/		GALAN and CURTISS, "Virulence and vaccine potential of phoP mutants of Salmonella typhimurium", Microb. Pathog., 8(6):433-43 (1989).	
/KS/		GROISMAN and OCHMAN, "Cognate gene clusters govern invasion of host epithelial cells by Salmonella typhimurium and Shigella flexneri", EMBO J., 12(10):3779-87 (1993).	

Examiner's Signature	/Khatol Shahnan Shah/	Date Considered	06/05/2007
Signature		00.10.00	33.33.23

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Please ty	ce e côus s	cion (+) in	side this	hor →

P	TO/SB/08A (10-98
Approved for use through 10/31/99	. OMB 0851-0031
Petent and Trademark Office: U.S. DEPARTME	NT OF COMMERCE

	Substitute for form 1449A/PTO	Complete if Known		
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheats as necessary)	Application Number	Divisional of 09/763,620	
		Filing Date	January 23, 2004	
		First Named Inventor	Michael Hensel	
		Group Art Unit		
	·	Examiner Name		
Sheet	1 of 12	Attorney Docket Number	ICI 104 DIV	

		OTHER ART NON PATENT LITERATURE DOCUMENTS	
xaminer's Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, paga(s), volume-issue number(s), publisher, city and/or country where published	T
/KS/Kh	atol :	BROWN, et al., Molecular analysis of the <i>rfb</i> gene cluster of <i>Salmonella</i> serovar muenchen (strain M67): the genetic basis of the polymorphism between groups the polymorphism between groups and B. Amor, Microbiol 6:1385-1394 (1992).	
/KS/	-	CAMILLI, et al., "Insertional Mutagenesis of <i>Listeria monocytogenes</i> with a Novel Tn917 Derivative That Allows Direct Cloning of DNA Flanking Transposon Insertions," <i>J. Bacteriol.</i> 172:3738-3744 (1990).	
/KS/		CARTER, et al., "The Route of Enteric Infection in Normal Mice," <i>J. Exp. Med.</i> 139:1189-1203 (1974).	
/KS/		CHEUNG et al. "Regulation of exoprotein expression in Staphylococcus aureus by a locus (sar) distinct from agr." Proc. Natl. Acad. Sci. USA 89:6462-6466 (1992).	
/KS/		CHIANG & MEKALANOS (1998) "Use of signature-tagged transposon mutagenesis to identify Vibrio cholerae genes critical for colonization," <i>Mol. Microbiol.</i> 27:797-805 (1998).	•
/KS/		CHUANG et aL "Global regulation of gene expression in Escherichia coli," <i>J. Bacteriol.</i> 175:2026-2036 (1993).	
/KS/		CIRILLO, et al., "Macrophage-dependent induction of the Salmonella pathogenicity island 2 type III secretion system and its role in intracellular survival," Mol. Microbiol. 30: 175-188 (1998).	
/KS/		COGHLAN, "Bar codes to tag 'bad genes," New Scientist p. 18 (July 29, 1995).	
/KS/		CORREIA et al. "Insertional inactivation of binding determinants of Streptococcus crista CC5A using Tn916," Oral Microbiol. Immunol. 10:220-226 (1995).	
/KS/		DOLGANOV & GROSSMAN "Insertional inactivation of genes to isolate mutants of Synechococcus sp. strain PCC 7942: isolation of filamentous strains," J. Bacteriol. 175:7644-7651 (1993).	

F	
Exeminer's /Khatol Shahnan Shah/ Date Considered 06/05/2007	

7

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Please type a pi	bes sign (+) inside this box →
------------------	--------------------------------

ļ	1		
•			
,			

				PT	O/SB/C8A	(10-88
	Approved	for use	through	10/31/99.	DMB 065	1-0031
Patent and	Tredemark	Office:	U.S. 01	PARTMEN	T OF COM	MERCE

السييسا					PRINTERS TRUBINET UTION: U.S. DEPARTMENT OF COMMERCE	
Under the Paper	neark Reduction Act of 1	995, no persons a	e required to respond to a collection of informat	ion untess it contains a valid OMB control number		
	Substitute for form 1449A/PTO			Complete if Known		
	STATI	EMENT	ON DISCLOSURE BY APPLICANT theets as necessary)	Application Number	Divisional of 09/763,620	
	(200		,,	Filing Date	January 23, 2004	
				First Named Inventor	Michael Hensel .	
				Group Art Unit		
	2		1	Examiner Name		
Sheet	*	of	19	Attorney Docket Number	ICI 104 DIV	

 1	<u> </u>	OTHER ART NON PATENT LITERATURE DOCUMENTS	
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
/KS/		DUNYAKL, et al., "Identification of Salmonella pathogenecity island 2 (SPI2) genes in Salmonella cholaraesuis using signature-tagged mutagenesis," Abstracts of the 97th General Meeting of the American Society for Microbiology 8-275, May 4-8, 1997.	
/KS/		FIELDS, et al., "A Salmonella Locus That Controls Resistance To Microbicidal Proteins From Phagocytic Cells," Science 243:1059-1062 (1989).	
/KS/		FINLAY, et al., "Identification And Characterization Of TnphoA Mutants Of Salmonella That Are Unable To Pass Through A Polarized MDCK Epithelial Cell Monolayer," <i>Mol. Microbiol.</i> 2:757-766 (1988).	
/KS/		FITTS, "Development of a DNA-DNA Hybridization Test for the Presence of <i>Salmonella</i> in Foods," Food Technology pp. 95-102 (March 1985).	
/KS/		FREESTONE, et al., "Stabilized 17D strain yellow fever vaccine:dose response studies, clinical reactions and effects on hepatic function," Journal of Biological Standardization 5:181-186 (1977).	
/KS/		GAILLARD <i>et al.</i> (1986) "Transposon mutagenesis as a tool to study the role of hemolysin in the virulence of Listeria monocytogenes," <i>Infect. Immun.</i> 52:50-55 (1986).	••
/KS/		GALAN, et al., "Molecular And Functional Characterization Of The Salmonella Invasion Gene invA: Homology Of InvA To Members Of A New Protein Family," (1992).	
/KS/		GenBank Accession No. A51688 <i>"Salmonella typhimurium"</i> (1997).	
/KS/		GenBank Accession No. A51689 "Salmonella typhimurium" (1997)	
/KS/		GenBank Accession No. AF0208080 "Salmonella typhimurium pathogenicity island 2, partial sequence," (1998).	

Ir:	//hatal Chahnan Chah/	Date 06/05/2007	
(Examiner's			1
lo:	/Miator Sharman Sharm	12 1 00/03/2007	
ISignature		Considered 00,00,2001	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Please t	ype a p	bus sign	(+) inside	this box	-

	PT0/SB/08A (10-98
Approved for use	through 10/31/99. DMB 0651-0031
Patent and Trademark Officer	U.S. DEPARTMENT OF COMMERCE

Approved for use through 10/31/99. DMB 0651-0031 atent and Trademark Office: U.S. DEPARTMENT OF COMMERCE	

Under the Pape	erwork Reduction Act of 1	895, no persons an	required to respond to a collection of informati	on unlass it contains a valid OMB control number		
Substitute for form 1449A/PTO			19A/PTO	Complete if Known		
	STAT	EMENT	N DISCLOSURE BY APPLICANT	Application Number	Divisional of 09/763,620	
İ	(650	do mony o	ricoto do ricocasary,	Filing Date	January 23, 2004	
ľ				First Named Inventor	Michael Hensel	
				Group Art Unit		
				Examiner Name		
Sheet	13	of	19_	Attorney Docket Number	ICI 104 DIV	

		OTHER ART NON PATENT LITERATURE DOCUMENTS	
Examiner's Initials •	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	Τ²
/KS/		GenBank Accession No. AJ224892 "Salmonella typhimurium ssaE, sseA, sseB, sscA, sseC, sseD, sseE, sscB, sseF, sseG, ssaG, ssaH, ssal genes and partial ssaD, ssaJ genes," (1998).	
/KŚ/		GenBank Accession No. AJ224978 "Salmonella typhimurium," (1999).	
/KS/		GenBank Accession No. J05534 "Escherichia cali ATP-dependent clp protease protectytic component (clpP) gene, complete cds," (1990).	
/KS/		GenBank Accession No. U51927 <i>"Salmonella typhimurium</i> SpiR and SpiB genes, partial cds, and SpiC and SpiA genes, complete cds," (1996).	
/KS/		GenBank Accession No. X56793 <i>"S. enterica</i> (group B) rfb gene cluster," (1991).	
/KS/		GenBank Accession No. X61917 "S. enterica (group B) rfb gene cluster," (1991).	
/KS/		GenBank Accession No. X99944 <i>"S. typhimurium</i> ssaO, ssaR, ssaT and ssaU genes," (1997).	
/KS/		GenBank Accession No. Y09357 <i>"S. typhimunum</i> ssaJ, ssaK, ssaL, ssaM, ssaV, ssaN, ssaO, ssaP, ssaO genes," (1997).	
/KS/		GenBank Accession No. Z23278 °E. coli ClpX gene, complete cds." (1993).	
/KS/		GenBank Accession No. Z95891 "Salmonella tyhpimurium ssrA and ssrB genes," (1998).	

Examinar's		Date	•
Signature	/Khatol Shahnan Shah/		06/05/2007
Signature		Considered	0010012001

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number 2 See attached Kinds of U.S. Patent Documents. 2 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. * Applicant to place a check mark here if English language Translation is attached.

_			
Please type a	obus sign (+) inside this box	۰

PTO/SB/DRA (10-88
Approved for use through 10/31/89. QMB 0851-0031
Parent and Trademark Officer 11.S. DEPARTMENT DE COMMERCE

_	_
	1

Substitute for form 1449A/PTO	C	omplete if Known
INFORMATION DISCLOSUS STATEMENT BY APPLICAL (use as many sheets as necessary)	· · · · ·	Divisional of 09/763,620
1	Filing Date	January 23, 2004
	First Named Inventor	Michael Hensel
	Group Art Unit	
	Examiner Name	
Sheet 6 of 14	Attorney Docket Number	ICI 104 DIV

		OTHER ART NON PATENT LITERATURE DOCUMENTS	
Examiner's Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
/KS/		GROISMAN & OCHMAN, "How To Become A Pathogen," <i>Trends Microbiol.</i> 2:289-293 (1994).	
/KS/		GROISMAN & SAIE, "Salmonella Virutence: New Clues To Intramacrophage Survival," <i>Trends In Biochem. Sci.</i> 15:30-33 (1990).	
/KS/		GENTSCHEV, et al., "The Escherichia coli hemolysin secretion apparatus – a versatile antigen delivery system in attenuated Salmonella," Behring Inst. Mitl. 98: 103-113 (1997), abstract only.	
/KS/		GENTSCHEV, et al., "Development of antigen-delivery systems, based on the Escherichia coli hemolysin secretion pathway," Gene 179: 133-140 (1996), abstract only.	
/KS/		GENTSCHEV, et al., "Synthesis and secretion of bacterial antigens by attenuated Salmonella via the Escherichia coli hemolysin secretion system," Behring Inst. Mitl. 95: 57-66 (1994), abstract only.	-
/KS/		GROISMAN, et al., "Molecular, Functional And Evolutionary Analysis Of Sequences Specific To Salmonella," Proc. Netl. Acad. Sci. USA 90:1033-1037 (1993).	
/KS/		GROISMAN, et al., "Salmonella Typhimurium phoP Virulence Gene Is A Transcriptional Regulator," Proc. Natl. Acad. Sci. USA 86:7077-7081 (1989).	
/KS/		GUZMAN, et al., "Antibody Responses in the Lungs of Mice following Oral Immunization with Salmonella typhimurium aroA and Invesive Escherichia coli Strains Expressing the Filamentous Hemagglutinin of Bordetella pertussis," Inf. Immun. 59:4391-4397 (1991).	
/KS/		GUZMAN, et al., "Direct Expression of Bordetella pertussis Filamentous Hemagghutinin in Escherichia coli and Salmonella typhimurium aroA," Inf. Immun. 39:3787-3795 (1991).	
/KS/		GUZMAN, et al., "Expression of Bordetella pertussis filamentous hemagglutinin in Escherichia coli using a two cistron system," Microbiol. Pathogenics 12:383-389 (1992).	

Examiner's Signature	/Khatol Shahnan Shah/	Date Considered	06/05/2007	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁵ Applicant to place a check mark here if English language Translation is attached.

Please type	a oku	sico (+)	insida	this	boz →

+	l
	ĺ

PT0/SB/08A (10-88
Approved for use through 10/31/89. OMB 0651-0031
Param and Trademark Office: ILS DEPARTMENT OF POLICEOPE

					•
Under the Paperwork Reduction Act of 1995, no persons ere required to respond to a collection of information Substitute for form 1449A/PTO			omplete if Known		
	STATE	MENT	ON DISCLOSURE BY APPLICANT	Application Number	Divisional of 09/763,620
	,			Filing Date	January 23, 2004
				First Named Inventor	Michael Hensel
				Group Art Unit	
	_			Examiner Name	
Sheet	5	of	14	Attorney Docket Number	ICI 104 DIV

			_
	,	OTHER ART NON PATENT LITERATURE DOCUMENTS	
Examiner's Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T.
/KS/		GUZMÁN, et al., "Use of Salmonella spp carrier strains to delivery Bordetella pertussis antigens in mice using the oral route," in Biology of Salmonella (Cabello, et al., eds.) Plenum Press: New York, NY (1993).	
/KS/		HAN et al. (1997) "Tn5 tagging of the phenol-degrading gene on the chromosome of Pseudomonas putida," <i>Mol. Cells</i> 7:40-44 (1997).	
/KS/		HENSEL, "Salmonella Pathogenicity Island 2," Mol. Microbiol. 36:1015-1023 (2000).	
/KS/		HENSEL, et al., "Functional analysis of ssaJ and the ssaK/U operon, 13 genes encoding components of the type III secretion apparatus of Salmonella Pathogenicity Island 2," Mol. Microbiol. 24:155-167 (1997).	
/KS/		HENSEL, et al., "Genes encoding putative effector proteins of the type III secretion system of Salmonella pathogenicity island 2 are required for bacterial virulence and proliferation in macrophages," Mal. Microbial. 30:163-174 (1998).	
/KS/		HENSEL, et al., "Molecular and functional analysis indicates a mosaic structure of Salmonella pathogenicity island 2," Mol. Microbiol. 31:489-498 (1999).	
/KS/		HENSEL, et al., "Simultaneous Identification Of Bacterial Virulence Genes By Negative Selection," <i>Science</i> 269:400-403 (1995).	
/KS/		HENSEL, et al., "The genetic basis of tetrathionate respiration in <i>Salmonella typhimurium," Mol. Microbiol.</i> 32:275-287 (1999).	
/KS/		HENSEL, et al., "Analysis of the boundaries of Salmonelle pathogenicity island 2 and the corresponding chromosomal region of Escherichia coli K-12," Journal of Bacteriology 179:1105-1111 (1997).	
/KS/		HOLDEN, "The type III secretion system of Salmonella" pathogenicity island 2," FEBS Advanced Course — Protein Export and Assembly in Bacteria, Lunteren, The Netherlands (1998).	

Euganinasia		lDate	1 00/05/0007
Examiner's		logia.	1 06/05/2007 I
0:	/Khatal Shahnan Shah/	د د د د د د ا	1 00/00/2007
Signature	/Khatol Shahnan Shah/	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Please type e plus sign (+) inside this box -

PTO/SB/DBA (10-88
Approved for use through 10/31/99. GMB 0851-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

	Substitute fo	r form 144	19A/PTO	, Co	omplete if Known
	STATI	EMENT	ON DISCLOSURE BY APPLICANT heets as necessary)	Application Number	Divisional of 09/763,620
				Filing Date	January 23, 2004
				First Named Inventor	Michael Hensel
				Group Art Unit	
				Examiner Name	
Sheet	10	of	142	Attorney Docket Number	ICI 104 DIV

		OTHER ART NON PATENT LITERATURE DOCUMENTS	
xaminer's Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T
/KS/		HOLLAND, et al., "Tn916 Insertion Mutagenesis In Escherichia Coli And Haemophilus Influenzae Type b Following Conjugative Transfer," <i>J. Gen. Microbiol.</i> 138:509-515 (1992).	
/KS/		JIANG, et al., "Structure and sequence of the rfb (O antigen) gene cluster of Selmonelle serover typhimurium (strain LT2)," Mol Miocrobiol 5:695-713 (1991).	
/KS/		JUNTENEN-BACKMAN, et al., "Safe immunization of allergic children against measles, mumps, and rubella," AJDC 141:1103-1105 (1987).	
/KS/		KAHRS et al. "Generalized transposon shuttle mutagenesis in Neisseria gonorrhoeae: a method for isolating epithelial cell invasion-defective mutants," Mol. Microbiol. 12:819-831 (1994).	
/KS/		KIM et al. "The hrpA and hrpC operons of Erwinia amylovora encode components of a type III pathway that secretes harpin," J. Bacteriol. 179(5):1690-1697 (1997).	
/KS/		LEAHY et al. "Transposon mutagenesis in Acinetobacter calcoaceticus RAG-1," <i>J. Bacteriol.</i> 175:1838-1840 (1993).	
/KS/		LEE, "Type III secretion systems: machines to deliver bacterial proteins into eukaryotic cells?" Trends Microbiol. 5(4): 148-156 (1997).	
/KS/		LEE & FALKOW, "Isolation of Hyperinvasive Mutants of Salmonella," <i>Methods Enzymol.</i> 265:531-545 (1994).	
/KS/		LEVINE, et al., "Salmonella vaccines" in <u>New Antibacterial Strategies</u> (New, HC, ed.), pp. 89-104, (Churchill Livingstone:London, 1990).	
/KS	/	LEVINE, et al., eds., "Attenuated Salmonella as a live vector for expression of foreign antigens," in New Generation Vaccines, 2 nd ed., Marcell Dekker: New York, Chapter 27, pp. 331-361 (1997).	

Examiner's Signature	/Khatol Shahnan Shah/	Date Considered	06/05/2007

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ² Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Please type a	nhis sion (a) inside this box

Sheet

PTO/SB/CBA (10-88
Approved for use through 10/31/89. OMB 0851-0031
Detent and Trademark Officer II & DEDARTMENT OF COLUMNOPE

ICI 104 DIV

ubstitute for form 1449A/PTO		Complete if Known
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)	Application Number	Divisional of 09/763,620
(ass as man, should be more as, , ,	Filing Date	January 23, 2004
	First Named Inventor	Michael Hensel
•	Group Art Unit	

Attorney Docket Number

Examiner Name

14

of

		OTHER ART NON PATENT LITERATURE DOCUMENTS	
examiner's Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	Τ²
/KS/K		LISITSYN, et al., "Cloning The Difference Between Two Complex Genomes," <i>Science</i> 259:946-951 (1993). Harras Stah/	
/KS/		LISITSYN, et al., "Direct Isolation Of Polymorphic Markers Linked To A Trait By Genetically Directed Representational Difference Analysis," <i>Nature Genetics</i> 6:57-63 (1994).	
/KS/	-	LU, et al., "Tagged Mutations At The Tox1 Locus Of Cochliobolus Heterostrophus By Restriction Enzyme-Mediated Integration," <i>Proc. Natl. Acad. Sci. USA</i> 91:12649-12653 (1994). /KS/	
/KS/		MAHAN, et al., "Selection Of Bacterial Virulence Genes That Are Specifically Induced In Host Tissues," <i>Science</i> 259:686-688 (1993).	
/KS/		MAURIZI et al., "Sequence and Structure of Clp P, the Proteolytic Component of the ATP-Dependent Clp Protease of Escherichia coli," <i>J. Biol. Chem.</i> 265(21):12536-45 (1990).	
/KS/		MECSAS & STRAUSS, "Molecular mechanisms of bacterial virulence: type III secretion and pathogenicity islands," <i>Emerging Infectious Diseases</i> 2(4): 271-288 (1996).	
/KS/		MEDINA, et al., "Pathogenicity Island 2 Mutants of <i>Salmonella typhimurium</i> Are Efficient Carriers for Heterologous Antigens and Enable Modulation of Immune Responses," <i>Infect. Immun.</i> 67:1093-1099 (1999).	
/KS/		MEI <i>et al.</i> "Identification of Staphylococcus aureus virulence genes in a murine model of bacteraemia using signature-tagged mutagenasis," <i>Mol. Microbiol.</i> 26:399-407 (1997).	
/KS/		MEJIA-RUIZ <i>et el.</i> "Isolation and characterization of an Azotobacter vinelandii algK mutant.," FEMS Microbiol. Lett. 156:101-106 (1997).	
/KS/		MILLER, et al., "A Two-Component Regulatory System (phoPphoQ) Controls Salmonella Typhimurium Virulence," <i>Proc. Natl. Acad. Sci. USA</i> 86:5054-5058 (1989).	

Examiner's	/Khatol Shahnan Shah/	Date	06/05/2007
Signature		Considered	06/05/2007
		· · · · · · · · · · · · · · · · · · ·	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁸ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Places tree	a nhra sina l a) inside this box>
LIGHTS (ADS	9 mm mm [+	

PTO/SB/OBA (10-88
Approved for use through 10/31/99. OMB 0851-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

	Substitute fo	r form 144	19A/PTO	C	omplete if Known
	STATE	MENT	N DISCLOSURE BY APPLICANT	Application Number	Divisional of 09/763,620
			•	Filing Date	January 23, 2004
				First Named Inventor	Michael Hensel
				Group Art Unit	
				Examiner Name	
heet	5	of	14,	Attorney Docket Number	ICI 104 DIV

		OTHER ART NON PATENT LITERATURE DOCUMENTS	
xaminer's Initials*	Cite No.'	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
/KS/		MILLER, et al., "Isolation Of Orally Attenuated Salmonella Typhimurium Following TophoA Mutagenesis," Infection Immun. 57:2758-2763 (1989).	
/KS/		MORRISON et al. "Isolation of transformation-deficient Streptococcus pneumoniae mutants defective in control of competence, using insertion-duplication mutagenesis with the erythromycin resistance determinant of pAM beta 1," J. Bacteriol. 159:870-876 (1984).	
/KS/		MYERS & MYERS "Isolation and characterization of a transposon mutant of Shewanella putrefaciens MR-1 deficient in fumarate reductase," Lett. Appl. Microbiol. 25:162-168 (1997).	
/KS/		NELSON, et al., "Genomic Mismatch Scanning: A New Approach To Genetic Linkage Mapping," <i>Nature Genetics</i> 4:11-17 (1993).	
/KS/		NORGREN et al. "A method for allelic replacement that uses the conjugative transposon Tn916: deletion of the emm6.1 allele in Streptococcus pyogenes JRS4," Infect. Immun. 57:3846-3850 (1989).	
/KS/		OCHMAN & GROISMAN, "Distribution of pathogenicity islands in Salmonella spp." Infection and Immunity 64:5410-12 (1996).	-
/KS/		OCHMAN, et al., "Identification of a pathogenicity island required for Salmonella survival in host cells," Proc. Natl. Acad. Sci. USA 93:7800-7804 (1996).	
/KS/		PANG et al. "Typhoid faverimportant issues still remain," <i>Trends Microbiol.</i> 6:131-133 (1998).	
/KS/		PASCOPELLA, et al., "Use Of In Vivo Complementation In Mycobacterium Tuberculosis To Identify A Genomic Fragment Associated With Virulence," Infection Immun. 62:1313-1319 (1994).	
/KS/		PELLCIC et al. "Genetic advances for studying Mycobacterium tuberculosis pathogenicity," Malecular Microbiology 28:413-420 (1998).	
	Ì		

Examiner's	/Khatol Shahnan Shah/	Date	06/05/2007
Signature	/Knator Shannan Shan/	Considered	00/00/2007

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that Issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Please ty	ne e mis	sian (+	l inside	this b	ax →

PTQ/SB/GBA (10	-98
Approved for use through 10/31/89. OMB OS51-0	IJ١
Patent and Trademark Office: U.S. DEPARTMENT OF COMME	ICE

Under the Paper	work Reduction Act of 16	195, no parsons an	required to respond to a collection of informati	on unless it contains a valid OMB control number	
Substitute for form 1449A/PTO		Co	omplete if Known		
	STATE	EMENT	N DISCLOSURE BY APPLICANT heets as necessary)	Application Number	Divisional of 09/763,620
				Filing Date	January 23, 2004
				First Named Inventor	Michael Hensel
				Group Art Unit	
				Examiner Name	
Sheet	a	of	19	Attorney Docket Number	ICI 104 DIV

		OTHER ART NON PATENT LITERATURE DOCUMENTS	
Examiner's Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
/KS/		PIATTI, et al., "Cloning and Characterization of S. typhi," Sociela Italiana di Microbiologia Medica Odontolatrica e Clinica '93 (Translation), p. 82.	
/KS/		PLUNKETT, EMBL ID NO:EC29479, ACCESSION NO.: U29579 (March 4, 2000).	
/KS/		POLISSI et al. Fourth European Meeting on the Molecular Biology of the Pneumococcus, Abstract A.18 (1997).	
/KS/		RAMAKRISHNAN et al. "Mycobacterium marinum causes both long-term subclinical infection and acute disease in the leopard frog (Rana pipiens)," Infect. //mmun. 65:767-773 (1997).	
/KS/		REGUE et al. "A generalized transducing bacteriophage for Serratia marcescens," <i>Res. Microbiol.</i> 142:23-27 (1991).	
/KS/		RELLA et al. "Transposon insertion mutagenesis of Pseudomonas aeruginosa with a Tn5 derivative: application to physical mapping of the arc gene cluster," Gene 33:293-303 (1985).	
/KS/		ROBERTS et al. "Cloning of the egl gene of Pseudomonas solanacearum and analysis of its role in phytopathogenicity," J. Bacteriol. 170:1445-1451 (1988).	
/KS/		ROOS et al. "Tagging genes and trapping promoters in Toxoplasma gondii by insertional mutagenesis," <i>Methods</i> 13:112-122 (1997).	
/KS/		ROTT et al. "At least two separate gene clusters are involved in albicidin production by Xanthomonas albilineans," J. Bacteriol. 178:4590-4596 (1996).	
/KS/		ROUDIER et al. "Characterization of translation termination mutations in the spv operon of the Salmonella virulence plasmid pSOL2." J. Bacteriology 174:6418-6423 (1992).	

Examiner's	/Khatal Shahnan Shah/	Date	00/05/2007
Signature	/Khatol Shahnan Shah/	Considered	06/05/2007

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁵ Applicant to place a check mark here if English language Translation is attached.

M			-1		Mt. A	
rease	(VDI)	965	ומספב	+1022	this box -	•

10

Sheet

PTO/SB/08A (10-98
Approved for use through 10/31/89. OMB 0851-0031
Patent and Trademark Office: U.S. DEPARTMENT DE CONNECOCE

Approved for use through 10/31/99. OMB DEST-10031 Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE	•
Complete if Known	
Divisional of 09/763,620	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449A/PTO

(use as many sheets as necessary)

19

Application Number	Divisional of 09/763,620	
Filing Date	1	
	January 23, 2004	
First Named Inventor	Michael Hensel	
Group Art Unit		
Examiner Name	·	
Attorney Docket Number	ICI 104 DIV	

		OTHER ART NON PATENT LITERATURE DOCUMENTS	
Examiner's Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T'
/KS/		RÜSSMAN, et al., "Delivery of epitopes by the <i>Salmonella</i> type III secretion system for vaccine development," <i>Science</i> 281: 565-568 (1998).	
/KS/		SCHIESTL & PETES "Integration of DNA fragments by illegitimate recombination in Saccharomyces cerevisiae," <i>Proc. Natl. Acad. Sci. USA</i> 88:7585-7589 (1991).	
/KS/		SHARETZSKY <i>et al.</i> "A novel approach to insertional mutagenesis of Haemophilus influenzae," <i>J. Bacteriol.</i> 173:1561-1564 (1991).	
/KS/		SHEA, et al., "Identification of a virulence locus encoding a second type III secretion system in Selmonella typhimurium," Proc. Natl. Sci. USA 93:2593-2597 (1996).	
/KS/		SHEA, et al., "Influence of the Salmonella typhimurium pathogenicity island 2 type III secretion system on bacterial growth in the mouse," Infection and Immunity 67:213-219 (1999).	
/KS/		SLAUCH, et al., "In Vivo Expression Technology For Selection Of Bacterial Genes Specifically Induced In Host Tissues," Methods Enzymol, 235:481-492 (1994).	
/KS/		SMITH, et al., "Genetic Footprinting: A Genomic Strategy For Determining A Gene's Function Given Its Sequence" <i>Proc. Natl. Acad. Sci. USA</i> 92:6479-6483 (1995).	-
/KS/		SMITH, et al., "Virulence Of Aspergillus Furnigatus Double Mutants Lacking Restriction And An Alkaline Protease In A Low-Dose Model Of Invasive Pulmonary Aspergillosis," Infection Immun. 62(4):1313-1319 (1994).	
/KS/		STAENDNER, et al., "Identification of <i>Salmonella typhi</i> promoters activated by invasion of eukaryotic cells," <i>Mol. Microbiol.</i> 18:891-902 (1995).	
/KS/		STEIN, EMBL ID NO:ST51867, ACCESSION NO.: U51867 (March 4, 2000).	

Examiner's	Whatal Shahnan Shahl	Date	00/05/0007
	/Knatol Shannan Shan/	Date	I 06/05/2007 I
Signature	Tribator Gridinali Gridin	Considered	1 00/03/2007 1
Gigilature		Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Sheet

of

Under the Peperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number Substitute for form 1449A/PTO Complete if Known Divisional of 09/763,620 Application Number INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) Filing Date January 23, 2004 First Named Inventor Michael Hensel Group Art Unit Examiner Name Attomey Docket Number ICI 104 DIV 19

		OTHER ART NON PATENT LITERATURE DOCUMENTS	
xaminer's Initials*	Cite No.'	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T,
/KS/		STOJILJKOVIK et al., "Ethanolamine utilization in Salmonella typhurium: nucleotide sequence, protein expression, and mutational analysis of the cchA cchB eutE autJ autG autH gana cluster," J. Bactariol. 177(5)1357-66 (1995).	
/KS/		SUBRAMANIAN et al. "Rapid mapping of Escherichia coli::Tn5 insertion mutations by REP-Tn5 PCR" PCR Methods 1:187-192 (1992).	
/KS/		SUTHERLAND & SPRINGETT, "Effectiveness of BCG vaccination in England and Wales in 1983," Tubercle 68(2):81-92 (1987).	
/KS/		TAM & LEFEBVRE "Cloning of flagellar genes in Chlamydomonas reinhardtii by DNA insertional mutagenesis," Genetics 135:375-384 (1993).	
/KS/		TRIEU-CUOT et al. "An integrative vector exploiting the transposition properties of Tn1545 for insertional mutagenesis and cloning of genes from gram-positive bacteria," Gene 106:21-27 (1991).	
/KS/		TZSCHASCHEL, et al., "An Escherichia coli hemolysin transport system-based vector for the export of polypeptides: export of Shiga-like toxin IleB subunit by Salmonella tyhphimurium aroA," Nature Biotechnol. 14: 765-769 (1996).	
/KS/		VALDIVIA & FALKOW, "Fluorescence-based isolation of bacterial genes expressed within host cells," Science 277: 2007-2011 (1997).	
/KS/		VALENTINE, et al., "Identification of Three Highly Attenuated Salmonella typhimurium Mutants That are More Immunogenic and Protective in Mice than a Prototypical aroA Mutant," Infect. Immun. 66:3378-3383 (1998).	
/KS/		WALKER, et al., "Specific Lung Mucosal and Systemic Immune Responses after Oral Immunization of Mice with Salmonella typhimurium aroA, Salmonella typhi Ty21e, and Invasive Escherichia coli expressing Recombinant Pertussis Toxin S1 Subunit," Inf. Immun. 60:4260-4268 (1992).	
/KS/		WALSH & CEPKO, "Widespread Dispersion Of Neuronal Clones Across Functional Regions of the Cerebral Cortex," Science 255:434-40 (1992).	

Examiner's	Whatal Chahnan Chahl	Date	06/05/2007
Signature	/Knatol Snannan Snan/	Considered	00/03/2007

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number 2 See attached Kinds of U.S. Patent Documents. 2 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant to place a check mark here if English language Translation is attached.

Phrasa type a plus sign (+) inside this box -	Please	type e	phus	sien (+) insida	this	bax –
---	--------	--------	------	--------	-----------	------	-------

ı	•	1
ı		Ł

PTO/SB/OBA (10-98
Approved for use through 10/31/99. OMB 0851-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO			449A/PTO	. Complete if Known		
	STAT	EMEN	ON DISCLOSURE T BY APPLICANT sheets as necessary)	Application Number	Divisional of 09/763,620	
		•	•	Filing Date	January 23, 2004	
				First Named Inventor	Michael Hensel	
				Group Art Unit		
				Examiner Name		
$\overline{}$	19,	of	14,	Attorney Docket Number	ICI 104 DIV	

		OTHER ART NON PATENT LITERATURE DOCUMENTS	
Examiner's Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
/KS/		WOOLLEY et al. "Transfer of Tn1545 and Tn916 to Clostridium acetobutylicum," Plasmid 22:169-174 (1989).	
	-		
j			

Examiner's /Khatol Shahnan Shah/ Date Considered 06/05/2007				
Signature //Milatol Stiatifian Stiatif	Examiner's	/Khatal Shahnan Shah/	Date	06/05/2007
	Signature	/Miator Sharman Shari	Considered	00/03/2007

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ATL1 #1538695 v1

ICI 104 DIV 078230/00034 - T-

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.